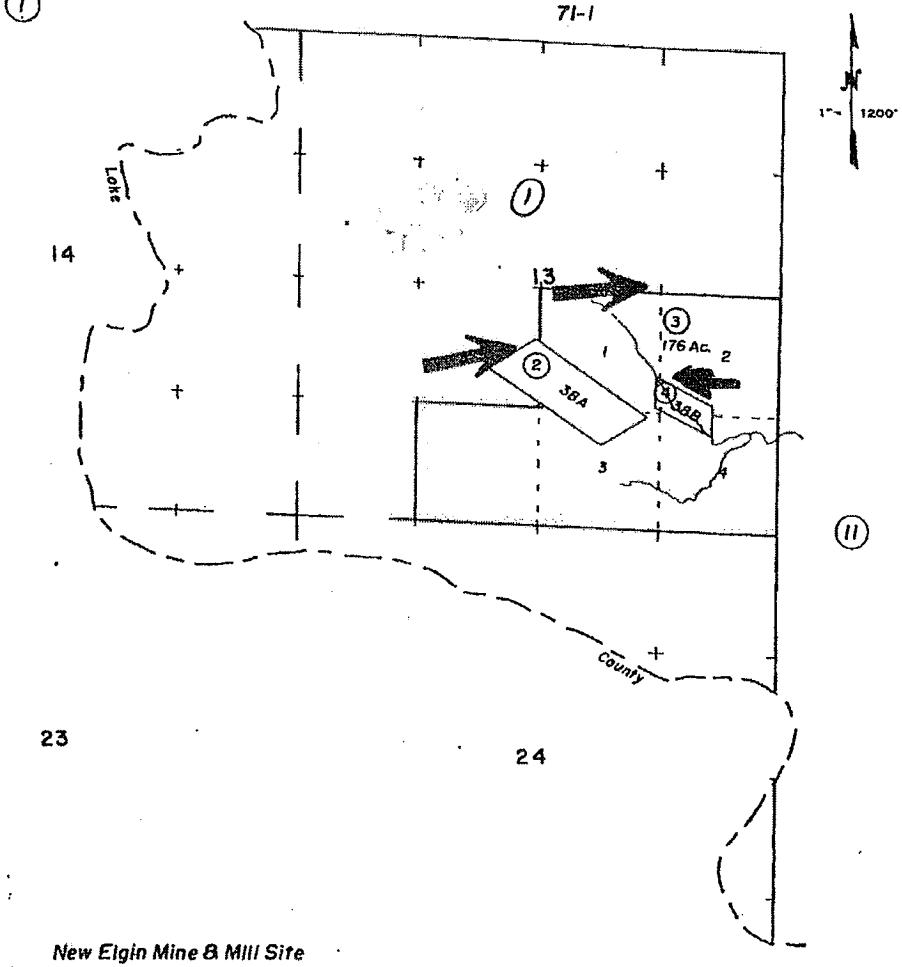
ATTACHMENT 1

ELGIN MINE AREA

T. 14 N, R. 6 W, M.D.B.& M.

Tax Area Code 71-1

18-10



New Elgin Mine & Mill Site

Assessor's Map Bk. 18 Pg. 10
County of Colusa, Calif.
1972

NOTE- Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles

ATTACHMENT 2

OFFICIAL RECORDS
COLUSA COUNTY

RECORDED AT REQUEST OF Magma Power Company... DATE Nov. 12, 1964 325 Official Records p. 286 Colusa County, California
58 Min. past 10 A.M. $ 3.60 p RECORDER

2644

MEMORANDUM OF LEASE AND AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

That NEW ELGIN MINE CORPORATION, as Lessor, and MAGMA POWER COMPANY, a corporation, as Lessee, did on the date hereof enter into a Lease and Agreement covering the land situate in the County of COLUSA, State of CALIFORNIA, described in Exhibit "A" attached hereto, for development of natural steam and steam power therefrom, for use as such or for conversion into electric power or for processing to obtain by-products therefrom.

The term of said lease is for twenty-five (25) years from and after the date hereof, (subject to termination as therein provided), and so long thereafter as there is commercial production of steam, electric power, or any by-products from the condensates of steam, derived or produced from the property leased thereunder, and for so long, as well, as Lessee is prevented from producing same, or the obligations of Lessee thereunder are suspended, for the causes as set forth in said Lease and Agreement.

Reference is hereby made to executed copies of said Lease and Agreement in possession of Lessor and Lessee, respectively, for all of the provisions thereof, and by this reference same is incorporated herein and made a part hereof in all respects as though fully set forth herein.

Dated this 27th day of MAY, 19 64.

NEW ELGIN MINE CORPORATION,

John M. Hohl M.D.
President

Secretary

LESSOR

MAGMA POWER COMPANY, a corporation

By
President

By
Asst. Secretary

LESSEE

BOOK 325 PAGE 286

DESCRIPTION OF PROPERTY

Lots 38-A and 38-B, known as the New Elgin Mine and Mill Site, in Section 13, Township 14 North, Range 6 West, M.D.B.& M., and,

The Southwest Quarter of the Southeast Quarter, and,

The Southeast Quarter of the Southwest Quarter, and,

Lot No. 4, in Section 18, Township 14 North, Range 5 West, M.D.B.& M., and,

Lot No. 1, in Section 19, Township 14 North, Range 5 West, M.D.B.& M.,

All in Colusa County, California,

Consisting of 200 acres, more or less.

STATE OF California)
) SS
COUNTY OF Mendocino)

On This 22 day of July, 1964, before me, the undersigned, a Notary Public, personally appeared [illegible] M.D. - President
[illegible] Sec. Treasurer, known to me to be the persons whose names are subscribed to the within Instrument, and acknowledged to me that they executed the same.

WITNESS My hand and official seal.

JOANN SMYTHE
NOTARY PUBLIC - CALIFORNIA
PRINCIPAL OFFICE IN
MENDOCINO COUNTY

JoAnn Smythe

STATE OF CALIFORNIA)
) SS
COUNTY OF LOS ANGELES)

On This 28th day of May, 1964, before me, the undersigned, a Notary Public, personally appeared [illegible], known to me to be the Vice President, and [illegible] Anthony, known to me to the Asst. Secretary of MAGMA POWER COMPANY, the Corporation that executed the within Instrument, known to me to be the persons who executed the within Instrument, on behalf of the Corporation herein named, and acknowledged to me that such Corporation executed the within Instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS My hand and official seal.

PHILLIP CHRONIS
NOTARY PUBLIC - CALIFORNIA
PRINCIPAL OFFICE IN
LOS ANGELES COUNTY

Phillip Chronis

My Commission Expires August 8, 1967.

ATTACHMENT 3

CALFED—CACHE CREEK STUDY
Task 5C2: Final Report

FINAL
ENGINEERING EVALUATION AND COST ANALYSIS FOR THE SULPHUR CREEK MINING DISTRICT COLUSA AND LAKE COUNTIES, CALIFORNIA

Prepared by:

Tetra Tech EM Inc.
10670 White Rock Road, Suite 100
Rancho Cordova, California 95670

(916) 852-8300

September 2003

Churchill and Clinkenbeard (2002) sampled solid materials at the Wide Awake Mine. Mercury concentrations were measured at fifteen locations. Results showed mercury concentrations of less than 10 to 1,040 ppm in soil and waste materials near furnaces, 10 to 40 ppm in calcined tailings piles, 5 to 220 ppm in waste rock or unidentified material piles, and 2 ppm in background weathered bedrock. The study reported an average gold concentration of 0.044 ounce per ton in three calcined tailings and waste rock samples. Analysis of mine site soil and calcined tailings samples showed both had a pH of 7. A Hydroxylamine HCl leaching procedure performed on soil below the condenser site and brick fragments and soil at the base of the furnace mobilized 6 and 21 percent of the total mercury within the respective samples. These values represented the highest mercury mobility of all the leaching analyses in the District during this study. An estimated 400 kg of mercury remains at the Wide Awake Mine, almost entirely within the mixed calcine and waste pile. The geochemical anomaly in the Wilbur Spring area, encompassing Central, Empire, Wide Awake, Cherry Hill, West End, and Manzanita mines, was estimated to contain 860 to 5,800 kg of mercury in the upper one foot of natural soil and bedrock across a 120-acre area.

Churchill and Clinkenbeard (2002) obtained a Hydroxylamine HCl leach analysis of brick fragments and soil at the base of the Scott furnace and soil at the site of the former condensers at the Wide Awake Mine. Leachates from the furnace and condenser soils contained 94 and 61 ppm mercury, which was 21 and 6 percent of the total mercury in the solid samples (440 and 1,040 ppm, respectively). However, this leaching experiment used a leachate solution with a pH of less than 1, and overestimates actual mercury leaching potential under natural conditions. Leachate mercury concentrations from the two Wide Awake Mine samples were one to two orders of magnitude greater than mercury concentrations in all other leachate samples.

Past mining activities have likely increased mercury mobility from the Wide Awake Mine by placing mercury-bearing materials in piles subject to erosion. Mercury may be released to Sulphur Creek by erosion from waste piles into a small creek tributary to Sulphur Creek.

3.2.6 Elgin Mine

The Elgin mine was relatively small compared to other Sulphur Creek district mines. Available production records indicate at least 52 flasks of mercury were produced from the Elgin Mine in 1875, and smaller production occurred in the 1890s and early 1900s (Churchill and Clinkenbeard 2002). Sulfur was also produced at the Elgin Mine. The total disturbed surface area for the Elgin was estimated at 5 acres.

The volume of tailings remaining at Elgin Mine comprises only 0.06 percent of the tailings remaining in the District.

Churchill and Clinkenbeard (2002) sampled solid materials at the Elgin mine. Mercury concentrations were measured at nine locations at the Elgin Mine. Results showed mercury concentrations of less than 20 to 3,030 ppm in soil and waste materials near ore processing units, 7 to 290 ppm in waste rock, and 5 to 330 ppm in background soil, sediment, and hydrothermal spring deposits. The study found an average gold concentration of 0.019 ounce per ton in five samples, including waste rock, calcined tailings, soil at the retort site, and hydrothermal spring deposits. Spring discharge and sediment containing mixed hydrothermal spring deposits and waste rock both had a pH equal to or greater than 9. The mercury mass estimated in two Elgin Mine waste piles was 320 to 1,400 kg, almost entirely within the larger waste rock pile. The geochemical anomaly in the Elgin Mine area was estimated to contain 34 to 226 kg of mercury in the upper foot of natural soil across a 5-acre area, or approximately 11 to 16 percent of the mercury contained in mining-related piles onsite.

Churchill and Clinkenbeard (2002) obtained a Hydroxylamine HCl leach analysis for one waste rock sample from Elgin Mine, collected near a travertine deposit and saturated with cooled hydrothermal spring water. Leachate from the sample contained 1.8 ppm mercury, which was 0.6 percent of the total mercury in the solid sample (290 ppm). However, this leaching experiment used a leachate solution with a pH of less than 1, and overestimates actual mercury leaching potential under natural conditions.

Mercury-bearing material from open cuts, mine waste piles, and soils at the former retort site at the Elgin Mine may erode into a Sulphur Creek tributary during storm runoff conditions. Hydrothermal springs discharge from the site, releasing naturally elevated mercury concentrations into the Sulphur Creek watershed. Under current site conditions, spring discharge flows through mercury-bearing mine wastes, where it may mobilize additional quantities of mercury.

3.2.7 Clyde Mine

The Clyde mine produced a small amount of gold and is relatively small compared to other Sulphur Creek district mines. The total disturbed surface area for the Clyde mine was estimated at 15 acres.

Churchill and Clinkenbeard (2002) sampled solid materials from three locations at the Clyde mine. . Results showed mercury concentrations of 6.6 to 40 ppm in soil and waste materials. The mercury mass

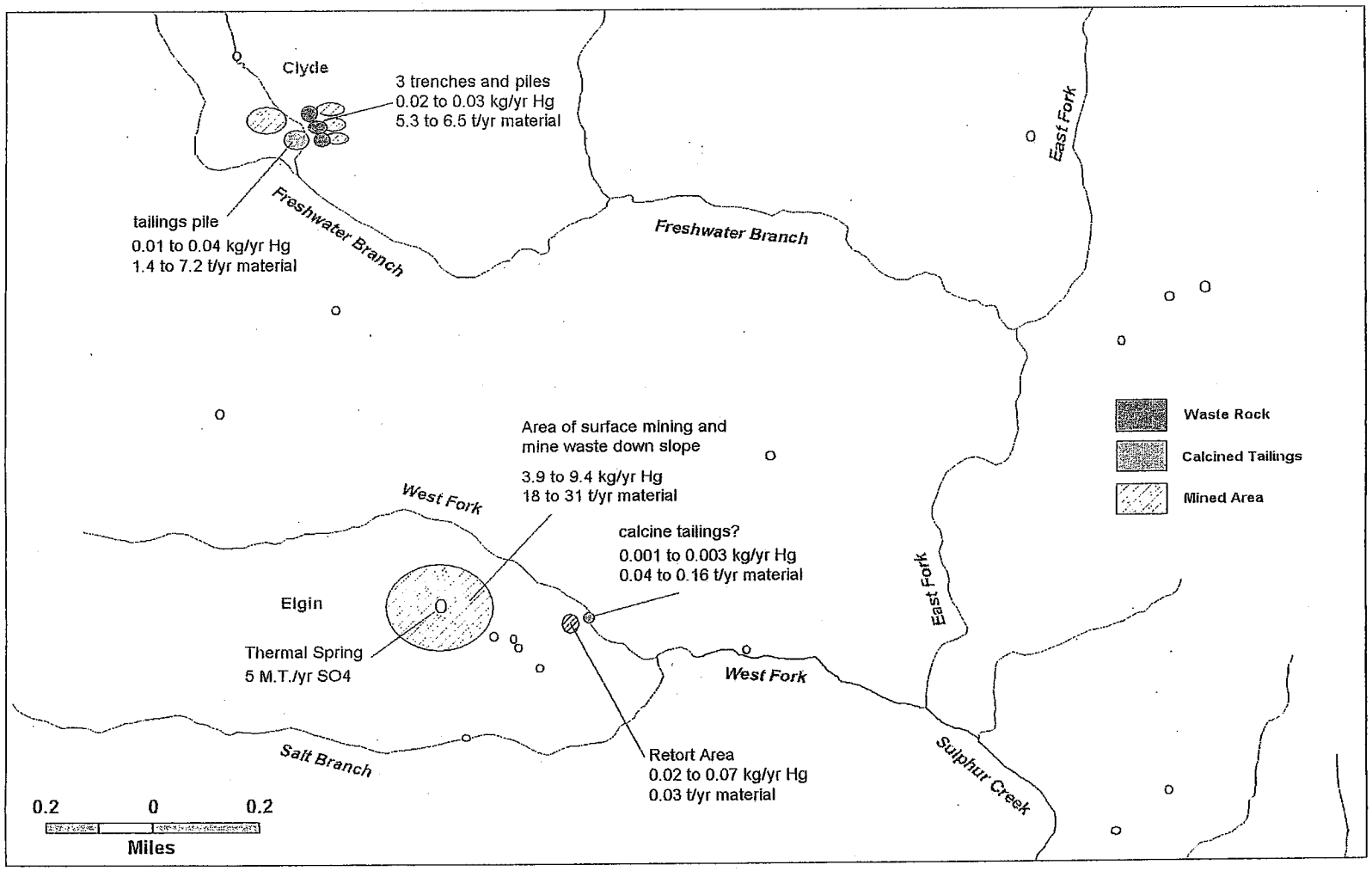


FIGURE 3-6

ESTIMATED ANNUAL MERCURY CONTRIBUTIONS TO THE WATERSHED BY FEATURE

ELGIN AND CLYDE MINES
SULPHUR CREEK MINING DISTRICT

Tetra Tech EM Inc.

ATTACHMENT 4

California Regional Water Quality Control Board
Central Valley Region
Karl E. Longley, ScD, P.E., Chair

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
http://www.waterboards.ca.gov/centralvalley

Linda S. Adams
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

24 June 2009

Gerald F. George
Pillsbury Winthrop Shaw Pitman LLP
P.O. Box 7880
San Francisco, CA 94120-7880

DRAFT CLEANUP AND ABATEMENT ORDERS FOR SULPHUR CREEK MINES, COLUSA COUNTY

We have reviewed your three letters dated 23 April 2009, that were primarily about Homestake Mining Company of California (Homestake) involvement in the Sulphur Creek Mine properties (Central Group Mines, Elgin Mine, and Wide Awake Mine). We generally agree with the history described in the letters however, based on our review and evaluation of the records received from Colusa County, below is our assessment of Homestake's involvement at the Sulphur Creek Mine properties.

Central Group Mines
Homestake both owned and leased property that included the Central, Cherry Hill, Empire, Manzanita, and West End Mines. While Homestake owned and leased the property, erosion would have occurred from the disturbed ground and from mining waste associated with past mining. Also, during the time Homestake owned and leased these properties Home stake constructed roads for drill pads, created drill pads and did trenching as part of mineral exploration. Some of these roads, pads and trenches would be located in the mineralized zone and would have cut through the mined area. This construction steepened slopes and removed vegetation that would have increased erosion for some period of time. Many of the pads and roads remain, and have been revegetated.

Elgin Mine
Homestake leased land around the Elgin Mine property and had under the lease exclusive possession of the mining property, with the lease reserving the right of the property owner to use the property for livestock grazing and other agricultural uses as long as it did not interfere with mining. The leased property does contain mining waste adjacent to West Fork Creek that has eroded into the creek including the period in which Homestake had control of the property. Also during the time of the lease, Homestake did mining exploration in the area, which would include cutting roads to drill pads, developing drill pads and possibly trenching. Some of these roads, pads and trenches would be located in the mineralized zone. This construction steepened slopes and removed vegetation that would have increased erosion for some period of time.

Wide Awake Mine
Homestake leased land in and around the Wide Awake Mine site. The lease gave Homestake exclusive possession of the mining property, with the lease reserving the right of the property

owner to use the property for livestock grazing and other agricultural uses as long as it did not interfere with mining.. The leased property does contain mining waste adjacent to an ephemeral stream that has eroded into the stream including the period in which Homestake had control of the property. It is assumed that similar to the above properties, Homestake developed roads, drilling pads and trenching at the Wide Awake Mine Site. Some of these roads, pads and trenches would be located in the mineralized zone.

To more clearly assess the constituents of concerns (metals, salts, etc.) that could migrate from the mine sites and the locations where Homestake performed exploration activities on the mining properties please provide the following:

1. Location of all borings and trenching (this should include maps), their depth and any logging done;
2. Location of all roads constructed to provide access to borings, trenching and sampling; and
3. All sampling results related to identifying the mineralized zone.

We request this information be provided by **24 July 2009**. Should you have any questions, please call me at (916) 464-4626 or email me at vizzo@waterboards.ca.gov.

VICTOR J. IZZO
Senior Engineering Geologist
Title 27 Permitting and Mining Unit